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INFLAMMATIONS OF THE URETHRAL MEMBRANE, FROM A SURGICAL STANDPOINT.

BY GEORGE HALSTED BOYLAND, A.M., M.D., ETC.

Synonyms: Blennorrhœa, Gonorrhœa, Urethritis, Gleet, Stricture.

Cornelius Celsus, who lived in the first century after Christ, and wrote at Rome his "De Medicina," already recognized the fact that there were certain diseases in which manipulation played the principal rôle, and devoted what at that period was doubtless considered a vast amount of literature to the subject of surgery, namely, one volume out of the eight that comprise this work. His definition of surgery is: "ea non quidem medicamenta atque victus rationem omittat; sed manu tamen plurimum praestat: estque ejus effectus inter omnes medicinæ partes evidentissimus." From that date surgical cases began to be considered by themselves, and the distinction, gaining force and weight by years, has been transmitted to the present generation in the form of a grand and separate department of science, with whole libraries of volumes on the subject of surgery alone, with schools devoted exclusively to its study, and with perhaps thousands of well trained men who practice that branch only. And yet it is impossible to draw the line (although the existing importance justly claimed for their art is urged by the surgeons as a reason for drawing it) between the fields of surgery and medicine. There is between them a wide border-land or neutral zone, which belongs to neither and is nevertheless common to both, embracing not a few diseases appropriated now by medical writers to their manuals and standard works, then by surgical writers to theirs. Again they appear in both. It is from this border-land that the obstetricians, but more especially the gynæcologists, have reaped such a harvest, and it is upon it that the latter have entirely built what may not inappropriately be called their craft. No class of diseases better illustrate this point than inflammations of the mucous membrane of the urethra; and no medical or surgical work of practical import is without a chapter on them. The question, do such inflammations belong to the domain of surgery? is certainly answered in the affirmative by the etymology of the word "surgery" itself, viz: *cheir* and *ergon*. So much for technicality. Therapeutically, surgery does the most, although medicine becomes at times a necessary adjuvant; but for the simple reason that it is so, there would be no more propriety in placing inflammations of the urethra in the department of inner medicine, than there would be in claiming certain cases of pleurisy for surgery because it is deemed advisable to blister, paint the chest with iodine, or use Dieulafoy's aspirator. Assuming, then, for these reasons, that such inflammations and their treatment belong, strictly speaking, to surgery, they will be considered from a surgical standpoint.

The symptoms and course of these diseases are sufficiently familiar to be omitted from this paper, which will be limited to a brief summary of their ætiology, pathological anatomy and treatment.

Inflammations of the urethral membrane are of two kinds only, acute and chronic. In the

first category belong all acute discharges, whether traceable to a coitus, to another irritation of the membrane, or to a wound. As blennorhœa is much more frequent in man than in woman, inflammations of the male urethra only will claim attention here.

Ætiology.—A causal factor in the production of blennorhœa, usually overlooked in the books, is sexual intercourse during menstruation, both parties being in perfect health. It is not intended to say by this that sexual intercourse under these circumstances is invariably, or even usually, a direct cause; for it is well known that such practice has been done without other results than filth, moral degradation, and a passing but slightly painful hyperæmia. Nevertheless, one of the most painful and obstinate cases of urethral blennorrhœa that the writer was ever called upon to treat came directly from this source. The walls of the vagina being richly furnished with mucous cells, the irritating influence of the menstrual flow sets them in motion and readily transfers them to a membrane of exactly the same character, that of the urethra. Arrived there, they set others in motion; these in their turn do likewise; and so on until the discharge appears; the surrounding inflammation in which the corpora cavernosa participate causing a stasis or engorgement of the veins, which do their part in facilitating by pressure the transudation of white blood corpuscles, which help to make up the discharge. Predisposition to such inflammations would naturally exist with over development of the membrum virile, with large and protruding lips of the meatus urinarius externus. The extra amount of blood required in this case, together with the larger supply of sensible, motor and vaso-motor nerves, together with the greater vascularity, must necessarily have their effect upon the central nerve system, which in its turn acts with reflex irritability upon the unnaturally large sexual organ. Hypospadias and epispadias, when not existing to such an extent as to prevent coition altogether, are to be placed in the class of predisposing causes. These malformations readily allow the vaginal secretions to enter directly into the middle of the urethra. Lymphatic temperaments, generally blondes, are more susceptible than others, and being infected are less speedily cured.

Moist climates have been considered more favorable to the development of gonorrhœa than dry ones, but my experience has been just the reverse. It is related of Ricord, that he invented a menu of such a character that one partaking of it, and having normal sexual intercourse thereafter would become affected with blennorrhœal urethritis. No proof is given that this experiment was ever actually made; but certain articles of food unquestionably find a place here; in fact, all articles of food and drink of an irritating or exciting nature, as, for example, spices, truffles, asparagus, shell fish of all kinds, coffee and spirits are, but very doubtfully, considered as predisposing.

Whether these articles of food and drink take an active part in bringing about blennorrhœa or not, the fact remains the same, that if partaken of during the actual course of the disease, they undoubtedly aggravate the symptoms and will cause a reappearance where it is apparently healed. Drunkenness especially favors the infection. As causes of urethral blennorrhœa, are to be cited rheumatism, scrofula, gout, and tetter, also without sure ground. These diseases, in the opinion of the writer, ought to be classed as possible suites or complications of gonorrhœa, rather than as causes; where they exist with gonorrhœa they are not without considerable influence upon its severity and length of course. It will be observed, in persons suffering with rheumatism, that blennorrhœa runs out and dries up quickly when a rheumatic attack comes on but returns as quickly when the affection of the joints diminishes. Other causes of a more direct nature may consist of physical or chemical applications, as, for example, calculi, oft repeated use of the catheter, injections of caustic ammonia and nitrate of silver. Most frequent of all, gonorrhœa results directly from sexual relations, which on their side again can act in many different ways. Here belong too oft repeated coition, notably with unproportionate largeness of the penis or narrowness of the vagina; further, masturbation, contact with the lochia, with discharge from cancer, in carcinoma of the portio vaginalis. This, however, is extremely rare; for married men, who by the sexual act touch the mouth of the uterus with the most vascular portion of the organism, do not contract disease from that source as a general rule. Leucorrhœa is also, though without certainty, ascribed as a cause.

By far the most important ætiological factor in diseases of the urethral membrane is the immediate influence of the muco-pus or pure pus secretion of a vaginal or uterine catarrh or gonorrhœa of these organs.

Pathological Anatomy.—It would perhaps have been more àpropos to say that the subject of pathological anatomy would not be considered, or at most only glanced at, in

this article, as it is quite scant as regards blennorrhœa, for the simple reason that only when patients suffering from it die, by chance, of some other disease, is opportunity given for morbid anatomical investigation. There is present redness, swelling, thickening of the mucous membrane, follicular ulcers, infiltration of the submucous tissue with plastic exudation, abscesses in the same, and when these point and break inwardly, also ulcers, which heal with considerable contraction of the urethra, caused by the scar which they leave, and which not unfrequently becomes later the seat of stricture.

The seat of acute inflammations of the urethra is considered by many to be close behind the fossa navicularis. Doubtless this is the case when a patient is attacked for the first time, supposing the cause to be vaginal secretion. But personal observation on a patient suffering from two cases of gonorrhœa, with an interval of health between them, made it perfectly clear that the seat of the second attack was the pars membranacea, there being absence of pain at the fossa navicularis and no chorda, both of which were present during the first attack. But contrary to the generally accepted opinion that each succeeding case in the same patient is milder and less painful, the second attack in this instance was, if anything, more severe and more extended than the first.

The absence of chorda in this and other second attacks, both being acute, is further evidence that the pars membranacea was the part affected; although the intensity of the inflammation is generally greater in some places than in others, and thus forms insulated spots, yet from the very nature of the membrane must the inflam mation extend over its entire length. In aggravated cases the inflammation spreads on to the fibrous wall of the urethra, and from thence to the corpora spongiosa and corpora cavernosa, and causes, by production of new connective tissue, knotty and hard patches, which hinder the flow of blood to that part of the corpora cavernosa, and this, coupled with the extreme irritability of the nervi errigentes, causes the frequent and painful erections designated as chorda. This condition varies as to severity. In one very acute case the writer afterward remarked sidewise chorda, evidently from the fact that *one* corpus cavernosum was affected. Views differ much as to the morbid nature of the gonorrhœal effusion; even at this late date, who can state positively and in general that the same does not go hand in hand with true syphilis, when undoubted authorities and excellent observers have placed upon record cases in which secondary syphilitic symptoms followed upon an ordinary gonorrhœa in just the same manner in which they follow upon an indurated chancre. Such an occurrence, however, seems to be rather an exception.

The great majority of urethral blenorrhœas, even when contracted from infectious discharges, be these discharges from soft chancre or from gonorrhœa, have only local significance, apart from gonorrhœal rheumatism, and such other diseases as owe their existence to a spread of the inflammation in the continuity of the mucous membrane, or in the lymphatic system. In the first category belong epididymitis, prostatitis, cystitis and even nephritis; in the second, inflammatory, painful buboes.

Space will not permit a discussion of the question whether gonorrhœal inflammation of the urethral membrane are identical with lues or not; therefore, after a word on chronic urethral inflammations the subject of treatment will be dealt with. The etiology of chronic inflammations of the urethral membrane may, in most cases (when no constitutional disturbance from other sources is present), be covered by the remark that such inflammations are due solely to neglect on the part of the patient, or to bad practice during the acute stage, on the part of the medical attendant, usually the former. The post-mortem appearances of the membrane in chronic inflammation of the urethra, or gleet, differ but little from those of the acute stage, except when an old stricture is found. Otherwise, there are the same insular spots, but of a more livid character. Thickness of the mucous membrane and submucous tissue are present, and as a natural consequence of the thickening there is narrowness of the urethral lumen; such narrowness may exist in several forms. In some cases the urethra is narrowed to the extent of several Paris lines only, its walls being thick and callous, but smooth or in form of a knotty prominence or of a long, uneven fold. At times the stricture shows a round sort of pad, which, like a ring, encircles the entire lumen of the canal, or is limited only to a portion of its periphery; at others it takes the appearance of a sharp, well-marked string. Again is seen an irregular protuberance which draws the mucous membrane in a wrinkle to it. The most frequent seat of stricture is in the vicinity of the bulbus urethræ, a natural consequence of what has already been mentioned, but is not generally accepted that, although the first gonorrhœal affection may have its seat close behind the fossa navicularis, each succeeding one

goes higher up, until finally a stricture is developed, sometimes almost at the entrance to the bladder. An exceedingly rare post-mortem appearance is induration of a pituitary gland, that can also narrow the lumen of the urethra. Chronic inflammations of the urethra, strictly speaking, possess no other property than the chronic blenorrhagic process of other mucous membranes; it matters not whether they be classed in the same pathological species as simple inflammations of the urethra, or whether they be designated as urethritis of a different type, contagious and virulent. Although this process, on account of either severity or position, may present different forms, they are rather different degrees of the same form. There is, therefore, no reason to push theory to the extent that is practiced by our foreign confrères, nor to embark with them upon a sea of technicalities, in endeavoring to distinguish and describe chronic inflammations of the urethra as simple, croupous, papillary, granular and follicular. There are only two inflammations of the urethra, an acute and a chronic; consequently, only one chronic inflammation, which runs its course at times with, at others without, tumefaction of the membrane; at times with, at others without, accompanying affection of the glands, passages and saccated formations that belong to the urethra. The so-called granular inflammation is in itself no more a special pathological anatomical definition of chronic virulent inflammation of the urethra than the granulation of any wound in general surgery would be of it. It was doubtless the spotted or granular appearance of certain patches in post-mortem urethræ that gave rise to the name. When granulation takes place in a wound there is an effusion, which is designated pus, but which varies, as to chemical composition, according to the physical nature of the wound. It is much the same with all inflammations of the urethra; and it being to the interest of science to simplify as much as possible the introduction of such distinctions as those mentioned above, the bringing into our already replete nomenclature such terms as "rirus granuleux," are not only confusing and unscientific, but absurd. The term granular inflammation has been selected as being the most prominent and at the same time the most plausible in the list of misnomers; as being, moreover, that in which others distinguish different varieties, consisting now of a papillary growth of the mucous membrane or of an early stage of wart-like excrescence, then of a follicular process of growth or of a trachoma. The trachoma of the conjunctiva exhibits real granulation, which chronic inflammation of the urethra does not. Inflammations of this character change readily to hypertrophy. There appears in the membrane a spongy mass, easily pushed aside, which later becomes a cicatrix and contracts into a string of tissue. Every stricture of the urethra from a gonorrhœal scar is the final stage of chronic inflammation, and the direct outcome of such a soft hypertrophic process of the mucous membrane. A pathological relation between this and the individual granum cannot be shown, and has never been found on any specimen that ever came under the observation of your author. But every process of chronic inflammatory infiltration and hypertrophy followed by shrinkage, whether ulcers are present or not, without gonorrhœa having gone before, is subject to the same pathological anatomical laws, be the chronic inflammation suite of an acute form or be it chronic *per se* from the very beginning.

Treatment.—The examination of the urethra must, in the general run of cases that come under observation, be limited to the sense of sight and touch, as in the beginning of an acute inflammation of the membrane every instrumental procedure is to be studiously avoided. As to practical purposes and ends, the examination internally of the urethral membrane, even when the inflammation is not severe, and the discharge has lasted already several days, is not really necessary. The use of instruments, which at a certain stage of the disease undoubtedly does become necessary, should, as a rule, be put off until the latest possible moment. Even in the chronic stage of an ordinary gonorrhœa—which in many cases follows the acute stage typically, and generally ends in healing after a course of several weeks' duration—experience proves that it is not necessary or indeed advisable to introduce instruments. After the regular chronic stage, the blennorrhœa assumes an entirely different form, and appears about to enter into a second chronic stage of a subcutaneous or submucous character. The practitioner has no difficulty in recognizing this point in the course of the disease, the point at which the question of instrumental interference is to be dealt with. The internal examination of the urethra is effected by means of sounds, bougies and the endoscope.

In sounding, the object in view will be best attained not so much in an examination by *introduction* of the sound, as in certain diseases of the bladder, but by introducing it, which should

be done very slowly and with the utmost care. Of course, if there were an old stricture the *introduction* would furnish valuable information as to size, toughness, etc.; but we are dealing with the membranes now at the outset of gleet, before the formation of stricture considered solely as stricture, and which would indicate the regular mechanical treatment. As the instrument is withdrawn, then, strict attention should be given in order to detect any wincing, grimace, or exclamation of pain, smarting, or even inconvenience, on the part of the patient. The sound will at once furnish the requisite information as to there being or not being a resistance offered at any point along the urethra. To ascertain this the more perfectly a sound with a small elongated button on the end should be used; one of malleable silver, and No. 5, will be found to suit most cases best. The pliability is a strong point, as the regular sounds sold in the shops are all more or less on one pattern. and curve accordingly. In case of any slight malformation about the neck of the bladder, or small prostatic enlargement, or difference in the arc described by the pars membranacea just before it terminates at the vesical entrance, the danger of ripping, tearing, or making a false passage, readily incurred by those not well practiced in the use of instruments, would be avoided. The pliable instrument being introduced and found upon *very gentle* manipulation not to proceed further, should be withdrawn, bent so that its convex edge or back will form a different arc, and again introduced. If it does not now glide readily in, the process should be repeated a second time, and so on until a soft and easy entrance is effected. In withdrawing it will be ascertained: 1st, Whether there is a hindrance distinct and of itself. 2d, Whether there is a place of especial tenderness and sensibility. 3d, Whether a slight bleeding occur. If it is fixed, from this instrumental exploration, that there is no resistance, and hence no narrowing, but that there is hyperæsthesia of the membrane, a further examination by means of the endoscope may prove useful. This instrument is not a new one, but was introduced by Desmoreaux, as long ago as 1853; it has since been improved upon and used quite generally. It is merely an application of the principles employed in the construction of the vaginal, the rectal, the nasal, the aural, and other specula, and the laryngoscope. It has, in fact, been lately carried to such perfection as to present, by means of a strong light thrown through it, a satisfactory view of the posterior wall of the bladder. The endoscope, or more properly the *urethral speculum*, consists of two blades, which screw apart, and are highly polished on the inside, the better to reflect the powerful light thrown in when they are opened. By moving it forward, backward, or around, as need be, a view of every portion of the urethra can be obtained. The membrane, on account of its elasticity, will be stretched taut during the use of the endoscope, and thus danger of a fold being caught between the branches will be avoided. The urethra is capable of considerable distention, and can only be thus explored when the lumen of the instrument is in a direct line with that of the urethral canal; and the movements from side to side must, when made, always be in the central field of vision. It will thus be seen that the lumen of the urethra, from the orificium externum to the bulbus, is perfectly central, except in the membranous portion, where it will appear excentral generally, pushed up, as it were. This view of the human urethra must be our guide in all pathological comparisons. The appearance of the membrane is, of course, different at different points of its extent, as is frequently observed, and as the discharges would already indicate. Injections of strong irritating or caustic solutions, as for example, nitrate of silver, or chloride of zinc, sometimes employed as abortive measures in the treatment of gonorrhœa, are not advisable, because a much larger surface is burned (the diseased one only being presumably our objective point), and the inflammatory process is thus spread, a circumstance not unfraught with danger. The writer only tried the abortive treatment in one case, years ago. It caused intense pain, followed by bleeding, which soon ceased, then the gonorrhœa came back and ran its usual course. The local employment of an irritating caustic by pencil, lapis infernalis, as suggested by Auspritz, is preferable to a solution if the abortive treatment is insisted on, care being taken to pass the pencil in behind the fossa navicularis. Injections with the syringe seldom reach beyond the symphysis. If it is desirable to bring the solution in contact with that part of the membrane behind the bulbus, the injection should be given by the physician. A gum catheter with eye at the end made a little larger than the ordinary eye, will aid materially, if the injection be made through it. Weak, non-irritating injections have the same effect upon the catarrhal mucous membrane that watery antiseptic wound dressings have upon the surfaces to which they are applied, viz: cleansing, refreshing, and relieving. Such injections ought to be used from the very beginning. The patient should be shown how to use the syringe, to elevate the penis with the

left hand during the injection, which is done with the right hand, grasp the meatus urinarius externus between the thumb and fore-finger of the left hand as the syringe is withdrawn, and to hold the fluid for ten minutes inside. Solutions of plumb. acet., or bismuth and morphia, are best, and by following this plan particles of them cling to the mucous membrane and continue the therapeutic effect after the injection is emptied. A better method of introducing these drugs is to have long pellets made, thin enough to slip easily into the urethra, and left there to dissolve, which they will do in twenty or thirty minutes, if made up with oleum theobrom. Salves, pastes, and irritating compositions only do good when left for a long time in contact with the membrane; they are not convenient, or to be relied on. The resinous preparations, copaiva, tolu, matico, tar, turpentine, etc., have produced digestive trouble and given no benefit, in my hands. It is scarcely necessary to state that very much depends upon the diet, which should be as simple and as meagre as possible. The only drink besides weak tea and coffee should be water, in which a handful of linseed has been thrown and allowed to settle at the bottom, before using. The soothing effect of copious draughts of this liquid on the mucous membrane is very great. The bowels must be opened regularly, frequent baths taken, and a suspensory worn. In this way an ordinary gonorrhœa will not last more than from four to eight weeks. The advent of another disease not syphilitic will cause an immediate and permanent cure; this is especially the case with cholerine.

ON AFFECTIONS OF THE EYE CONSEQUENT UPON WHOOPING-COUGH.

BY DR. M. LANDESBERG,

Of Philadelphia.

The statement of Sir C. Bell, that the contraction of the lids during every violent act of expiration supports the eyeball and its blood vessels, and guards them against the violent rush of blood which attends every great expiratory pressure, has been fully corroborated by the later investigations of Professor Donders, of Utrecht, made by suggestion of Ch. Darwin. During every violent expiration the blood vessels of the eye are greatly distended, the pressure of the blood in the arteries being increased, and the venous circulation retarded. Under these circumstances ruptures of vessels of the eye would be of very frequent occurrence, if the firm closure of the eyelids and their pressure against the eyeball should not limit or totally remove the dilatation of the vessels.

But even this support given to the vascular system of the eye is not always sufficient in order to prevent ruptures of blood vessels during violent expiration. In many instances of violent coughing, vomiting or sneezing, we not unfrequently meet with numerous ecchymoses of the lids, and the conjunctiva of the eyeball, caused by ruptures of small vessels, which, notwithstanding the closure of the lids, could not resist the force of the expiratory effort. Such extravasations, however, are in the majority of cases inoffensive, and resorption may take place spontaneously. But there are instances in which the rupture of blood vessels consequent upon violent expiration gives rise to serious morbid alterations of the eye, which may seriously endanger its function.

Of the latter category four cases came under my cognizance during my practice, the report of which will be of some interest to the profession.

Case 1.—V. A., seven years old, brought to me July 16th, 1872, is suffering from whooping-cough, the attacks of which are very violent during the night. On the morning of July 13th, after a night of violent coughing, the eyeballs and the lids were suffused with blood, and vision of the right eye was almost totally obscured.

Examination showed numerous hemorrhagic extravasations scattered on the eyeball and the lids of both eyes.

Right Eye. Media clear, pupil somewhat dilated, reacts but very slowly on reflex action. Tissue of iris, intraocular pressure normal. Of vision only quantitative perception of light. Optic disc of reddish hue, somewhat swelled and of indistinct outlines. The whole surface of retina infiltrated. Macula lutea appears like a red disc, with a cherry-red spot in its centre. Arteries are very thin, veins engorged and tortuous. The circulation of blood is interrupted in one upper arterial branch.

Left Eye. Normal. $V = \frac{1}{1}\frac{5}{5}$.

Apparatus of circulation and respiration normal.

I resorted to daily hypodermic injections of two milligrams of strychnia into the right temple.

July 17th. $V = \frac{15}{200}$. Jæg. 15. Pupil of normal shape, reacts slowly consensually, somewhat better on reflex action. Optic disc less swollen; peripapillary region more distinct. Arteries more filled up. Macula lutea of paler hue.

July 19th. V = $\frac{1}{7}\frac{5}{0}$. Jæg. 10. Reaction of pupil normal. Optic disc only slightly pushed forward, of more distinct limits. Serous infiltration of retina very slight. Veins less distended and tortuous. Arteries more filled up. The central spot of the macula lutea is of brownish color. The blood current is interrupted in two upper arterial branches.

July 23d. V = $\frac{1}{4}\frac{5}{0}$. Jæg. 3. Optic disc somewhat opaque in its inner half, palish in the outer one. Arteries somewhat thinner than on the left eye. Veins are normal. The obliteration of the two upper arterial branches is progressing. Retina and macula lutea are normal.

July 26th. V = $\frac{1}{3}\frac{5}{0}$. Jæg. 2. Optic disc of palish hue. The two obliterated upper arterial branches are marked as fine white bands upon the red ground.

The treatment is discontinued, when two further injections of strychnia did not alter the last result.

Case 2.—A workman's child, three years old, suffering from whooping-cough, was under my treatment, from the first day of May, 1879, for phlyctenular keratitis of the left eye. The right eye was normal. Paroxysms of whooping-cough often occurred, consequent upon the violent struggling and crying of the child during medical attendance. May 14th. After the eye had been attended, and while the mother was trying in the waiting room to quiet the screaming child, a very violent fit of whooping-cough broke out, and immediately afterward the mother rushed into the office speechless with consternation. I ascertained, at once, *a complete exophthalmus of the right eyeball.* The latter was immovable, and protruded from the orbit in the direction of the optic axis. The conjunctiva of the eyeball was slightly infiltrated, intensely injected and sprinkled with numerous large and small hemorrhagic extravasations. The cellular tissue of the orbit and the lids were suffused with blood, and the lids pressed against the æquator bulbi, leaving about half of the globe uncovered. Media were normal. Pupil was somewhat contracted. On dilating the latter, ophthalmoscopic examination showed hyperæmia of the optic disc and the retina. Arteries normal. Veins dark-red, largely distended and tortuous. The condition of vision could not be ascertained.

Abstaining from all therapeutics, I applied a protective bandage only. Resorption of the blood took place spontaneously. There was complete restitution ad integrum.

Case 3.—W., farmer's son, seven years old, was brought to me January 15th, 1880, on account of impairment of vision, which had set in three days before, consequent upon a violent fit of whooping-cough.

Examination showed numerous hemorrhagic extravasations over the conjunctiva bulbi, the lids and the adjacent parts of both eyes.

Right Eye. V (somewhat eccentric) = $\frac{1}{3}\frac{5}{0}$. Jæg. 6. Central scotoma. Visual field contracted in the medial upper quadrant. Media clear. Reaction of pupil normal. Optic disc somewhat hyperæmic, covered with small ecchymotic spots. Margin of optic nerve somewhat hazy, occupied in its nasal part by a large hemorrhagic extravasation; large ecchymoses are scattered on the nasal half of the retina. Veins are somewhat distended, arteries normal.

Left Eye. Normal. General health good. Treatment was not agreed to at the time.

When I saw the boy, about five months later, there was divergent strabismus of the right eye. Eccentric vision = $\frac{1}{2}\frac{5}{0}\frac{5}{0}$. Jaeg. 12. Optic disc opaque, pale, with atrophic excavation. Arteries very thin; veins normal; ecchymotic spots resorbed. The hemorrhagic extravasations on the border of the optic disc and on the nasal half of the retina somewhat yellowish, but in all other respects unchanged.

Case 4.—C., grocer's son, ten years old, suffering from whooping-cough, had a violent fit of coughing in the night of July 13th, 1880. On the following day he noticed a curved black line in the visual field of his right eye; besides, the objects seemed slightly crooked and not so distinct as they had been before. There were numerous blood extravasations on the lids and the eyeball, which spontaneously disappeared.

Examination, made July 23d, showed—

Right Eye.—Media clear. Pupil slightly contracted, of fair reaction. The lower half of the anterior chamber is somewhat shallow, which is caused by the bulging forward of the lower part of the iris. The upper part of the iris is slightly tremulous. The ophthalmoscope reveals nothing abnormal, while the pupil is contracted. After the latter had been completely dilated, the ophthalmoscope shows the upper border of the lens as a dark curved line, and diplopia of the optic disc and the vessels. There is V = $\frac{2}{3}\frac{5}{0}$. Jæg. 3. No monocular diplopia. Cylindric glasses do not improve vision.

Left Eye.—V = $\frac{1}{2}\frac{5}{0}$. Jæg, 1. We had to deal here with a subluxation of the lens, caused by the partial rupture of the zonula Zinii, which took place in consequence of the commotion of the eyeball by the violent fit of coughing.

1912 *Arch Street.*

REMINISCENCES OF A VISIT TO EUROPE IN 1879.

BY LAURENCE TURNBULL, M.D.,
Of Philadelphia.

VIENNA, September, 1879.

On Friday and Saturday suffered much from the effects of the dust and damp of this region, which was before referred to, and had a most severe attack of influenza, in spite of the use of large doses of quiniæ sulphas, gargle of chlorate of potassium, etc. The discharge was so profuse that I had to plug my nostrils with cotton, a plan which was found of great use in protecting the irritated mucous membrane. On Sunday was able to dine with Professor Gruber, but not well enough to make an excursion to the Austrian Alps with Professor Politzer and a party of friends. Spent some time with the latter, seeing his practice in his private office, and also examining a large number of normal and pathological preparations. The latter were very instructive, and numbered over forty. The normals ones numbered about one hundred. There was an interesting case in his office, a lady patient, in whom he had performed perforation of the mastoid process, with success, last November. Two of the pathological specimens were interesting to me in this connection, as the mastoid in one had been perforated during life, and in the other after death. In the first, the bone was very thin and spongy, and had allowed the instrument to penetrate too deeply, while in the other specimen the whole petrous portion of the temporal bone had been diseased, and had a loose sequestrum in the centre of it, which could only have been removed by a most extensive operation; but before this was attempted the patient died, from blood poisoning. It resembled a specimen in my own collection, presented to me by the late Dr. Halsey. There was also a preparation of the normal Eustachian tube, varnished, prepared with carbolic acid, after the plan of the Professor of Anatomy of Geneva (which I described in my letter from that city). Professor Politzer stated that the muscular portion was two and a half centimeters, while the bony portion was only one half centimeter in length. I inquired about the use of bougies in dilating the tube. I found, like us, he employs the ordinary form, of varnished silk, of the French, but in many instances he finds it necessary to employ those of whalebone, rounded and very fine. I made an engagement to meet him on the following day at the University, to be present at his clinic.

After dinner Dr. Gruber invited me to go with his wife and children to the Prater, it being, by the way, one of the finest days since my visit to Vienna. So we all went, in the cars, and when we arrived he would have me go in with him to see the rotunda of the main building of the Exposition, which he stated was a pecuniary loss to Vienna of 20,000 florins, owing to the excitement and a slight attack of cholera which then prevailed. In this building was the celebrated "Blondin," of Niagara fame; he had a wire rope across the immense building, and he and the persons in the upper parts looked like pigmies. There were 15,000 persons in the building. He not only walked across, but carried a stove on his back, lighted it, baked a cake, ate part of it, drank wine, and then sent down the balance to the audience, and started across with the stove burning and smoke coming out of the pipe, until he arrived on the other side. The distance was 250 meters, or about one fourth of a mile. We then went all about the Prater, and found the place filled with every conceivable kind of amusement—concerts, etc. I then took a carriage, saying good-bye to them.

This morning, according to appointment, went to Prof. Gruber's house at a quarter to nine; it was raining; he called a cab, and we soon arrived at his private room, where we left our wraps, and passed through a crowd of patients to the clinic room. The Professor and his assistant immediately went to work. The book of registration contained several items not on our book at Jefferson College Hospital, as, for instance, a line for special hospital cases in the wards, the whole number of which, up to that morning, since the middle of 1861, was 1629; then there was a space for the new patients, etc. I send you the form and the ticket which each one must bring with them. The very first case happened to be one of perforation of the membrana tympani, and he began by showing me his punch, by which he can make artificial drums out of any kind of material. He first determined the hearing distance, which was three centimeters; he then tried with a piece of linen, and this increased it to double; not satisfied, he tried India rubber, gold-beater's skin, court plaster, but none did so well as the simple muslin, which he likes very much, as he can put on it ointment of any kind. In a second case, a young girl, he tried the rubber cloth, and shortly her hearing power was increased from 2½ centimeters to 30. He showed me several cases of hypertrophic enlargement and thickening of the drum, and also thickening of the posterior folds, which thickening he treats by free injections into the

middle ear, with tepid solutions of sodium carb., until it bulges outward, and gets into the thickened masses of the membrana tympani, when he perforates the membrane with advantage. In an acute catarrhal inflammation of the middle ear he employs preparations of gelatine and glycerine, morphia, one-tenth of 100 grains, and various other agents, which, he says, not only relieves pain, but improves the otorrhœal discharge. They are like a little bottle in shape, and if they do not dissolve, which they should do in almost every case, he adds a little warm water; but if properly prepared they will dissolve in a few minutes. After seeing some 25 or 30 cases of every variety of diseases of the ear, he passed into his private room again, and showed me some fine normal specimens of the anatomy of the ear, and dwelt upon his discovery of the cleft or opening through the mastoid process, the microscopic illustrations of the various bands of the membrana tympani, also the cartilage which is found in the joints of the malleus, etc. Then a most interesting case of caries in a little girl, covering all the mastoid process, with a large sinus running through it. She got well, leaving a large opening. Another case of exfoliations of the cochlea entire. Another, of a patient whom he had operated on for mastoid disease with success, but who died of dysentery, and he procured the bone. Also, an extensive case of caries, showing the nerves, etc., this patient dying with tuberculosis. He then went with me to "Leiter's," and we got three mirrors, a cutter, a pair of forceps, and syringe, for use with the catheter. Gruber's instrument for removal of adenoid growths is more sensible than anything I have seen; all others are either scrapers, or too heavy in form for use for children.

My opinion is that the diseased condition of the post-nasal space termed "adenoid growths" is not as frequent as it was supposed to be by Dr. Meyer, of Copenhagen, who was the first to draw attention to the disease, in a paper published in October, 1869. In the clinic of the University of Vienna Dr. Gruber had no case on his list. I went to Paris and met Dr. Lœwenberg, in consultation. I most certainly thought this gentleman, who published an exhaustive treatise on the disease, would be able to show me a number of cases; but in three visits to him he was unable to show me a single case. Again, when I went to Edinburgh I was most kindly invited to visit the Ear clinic of the Edinburgh Royal Infirmary, by the surgeon in charge, Dr. Kirk Duncanson, and was much interested in his cases, but he had no case of this disease. In London, Dr. Mackenzie showed me every attention, and also gave me a note to his chief assistant, Mr. Mack Hovell, who is medical officer and registrar of the Hospital for Diseases of the Throat and Chest, with its tens of thousands of cases; and in all their large number of instructive cases, of which I examined over one hundred, there was but one case of "adenoid" disease in the hospital, and this one had been operated upon by Dr. Edward Woakes. In our own clinics at the Howard and Jefferson Hospitals the number of cases of this peculiar form of disease have been very few—say, from 1879 to 1880, not more than *three* well defined cases. There are numerous cases of hypertrophic development of the granular structure and acinose mucous gland, but no pendulous projections; but these are very different from a case of "adenoid" disease, which is made up of growths varying in size from a pea to some as large as a pigeon's egg, and when the finger is placed back of the soft palate they resemble an irregular, soft, pendulous mass, and are aptly compared by Dr. Meyer to a "bunch of worms." Opportunities of seeing true cases are rare, and when only known by a description we are apt to confound them with the form of post-nasal catarrh associated with chronic inflammatory enlargement of the *pharyngeal tonsil* which occupies the vault and a portion of the posterior wall of the pharyngo-nasal space. It is to the researches of "Luschka" that we are indebted for the most complete description of this organ, and to Dr. Andrew Clark, of London, who, in the London Hospital Reports of 1864, accurately described the disease, and who also proved that the secretions, when healthy, had the power of converting starch into sugar and assisting in digestion. We fully believe that the tonsils are placed there to assist digestion, and when healthy perform their function up to the age of thirty; after that time they are not as active, and then reduce in size.

Benzoate of Soda.

According to Müller, of Breslau, in *La Presse Médicale Belge*, benzoate of soda has no action on bacteria, and does not prevent infection. It conducts itself very much the same as salicylate of soda. These salts have neither antiseptic nor antiputrescent properties, while benzoic or salicylic acids have these properties in a high degree. The action of these salts varies considerably, according to the plan of absorption. In the stomach they are decomposed by the hydrochloric acid: salicylic acid and benzoic acid are set free, and may act locally as antiseptics.

Hospital Reports.

BELLEVUE HOSPITAL, N. Y.

CLINIC OF AUSTIN FLINT, M.D.,

Professor of Principles and Practice of Medicine in Bellevue Hospital Medical College, New York.

Insolation.

I wish to call your attention first, to-day, gentlemen, to this patient. It is a case of insolation, or sunstroke. The oppressive and unprecedented hot weather at this season has produced quite a number of cases of sunstroke. Only two cases, however, have been received into this hospital. One case terminated fatally a few minutes after admission. This is the other case, which was transferred to the third medical division. This case, I am happy to see, is apparently doing exceedingly well. It is a rather typical case, I think, after looking at the history, of insolation proper, or thermal fever, if you choose to call it so. It is an essential fever, evidently. Let me say that cases of so-called insolation are of a somewhat diversified character, and practically it is very important to make a discrimination among the cases. The very typical cases are cases of sudden coma accompanied with high fever and frequently a very high temperature. This case, as we shall see, had quite a high temperature. These are the two more important criteria of thermal fever, or a true case of insolation; but during the prevalence of heat patients frequently become exhausted, and they lose consciousness suddenly from pure exhaustion, and they are brought into the hospital. In these cases we do not find the high temperature; we do not find the forcible pulse or the strong action of the heart that we do in the cases of thermal fever; and it is very important not to treat these cases in the same way as we would treat cases of a different character. Perhaps the majority of cases come within these two conditions. Then there are cases (but I do not know that these should be separated from the cases of thermal fever) in which we have developed very quickly all the symptoms of acute cerebral meningitis; and these are to be treated as cases of acute cerebral meningitis. And we have other cases where, in addition to a high temperature and a strong pulse, we have the symptoms which denote active cerebral congestion; and these cases, I think, should be discriminated, for I have been led to the conclusion that in these cases prompt venesection is indicated, and we may be able to save life by resorting to it. I think I have seen at least one life saved by a prompt resort to venesection. With reference to the use of that treatment, we should certainly make a discrimination between cases where the symptoms are those of exhaustion and cases where the symptoms are those of cerebral congestion.

Well, now, the history of this case has been taken very carefully, and will be instructive, I think, as giving you a good picture of a case of thermal fever or insolation, febrile phenomena being prominent. The patient's name is August O., a German, forty-five years of age, a tailor by occupation.

In speaking of cases of insolation which may occur during this hot weather, I meant to have referred to the importance of discriminating between cases of insolation and cases of alcoholic intoxication. A considerable number of the cases brought into the hospital during the time cases of insolation occur are cases of drunkenness; of course we are to make that discrimination.

This patient was picked up in avenue A in a comatose condition, and when admitted, at 8.50 P.M. yesterday, he was still comatose; the breathing stertorous and labored, the skin dry and hot, the eyelids closed, the pupils contracted; the temperature in the axilla was 106°. I have known it to be 110 in a case which recovered under treatment. The pulse 160, full, incompressible; involuntary evacuation of the bowels; he vomited once. The lungs were examined, but presented nothing abnormal.

This was the group of symptoms when the patient was admitted. The treatment consisted in putting at once the ice bag upon the head. Then he was put upon what is known as Kibby's cot, which is a cot so constructed as to allow of a very convenient application of cold water, or warm water, as the case may be, to the whole body, and he was bathed with cold water. He had dry cups applied to the chest as a prophylactic measure. We know that one of the conditions incidental to insolation is pulmonary congestion. This was done, then, immediately after his admission into the hospital, and he was admitted at 8 o'clock and 50 minutes last evening. It is important to take note of the time here, so as to judge of the efficacy of the treatment. At 9.30 the temperature in the axilla was reduced to 102°—from 106° to 102°—by treatment with water. He had then a cold water enema. At ten o'clock, half an hour later, the patient was evidently improved; he opened his eyes; the pupils were more dilated; he starts, gasps, and shivers when water is poured upon him. The breathing now is less labored and more natural. This shivering and starting shows an increase of reflex excitability. He now had a hypodermic of two drachms of whisky with five drops of digitalis. That was at 10 o'clock. At 10.30, the cold water being still applied, the temperature in the axilla (which is not a good guide—a point to be borne in mind, and this affords an illustration of it) gave only 101°; in the rectum, however, it gave 103°, making a difference of two degrees. He had twitching of the eyelids and mouth, and his lower jaw was noticed to move. At 11 o'clock A.M. the temperature was 101.5°. The patient is lying perfectly quiet and the breathing is easy. Six ounces of urine were withdrawn from the bladder by the catheter. It was amber in color, clear, acid, specific gravity 1.014, and contained no albumen. The latter fact is of importance, so as to exclude uræmia in these cases. If we accept cases of coma as those of insolation without due attention, there being a variety of causes for coma, it is quite possible to make mistakes. At 3.30 in the morning the temperature was 101.5°, and he had more reflex excitability. He started, and had contraction when the skin was touched. He answered questions. The arms

were flexed, and it required some force to straighten them. He had contraction of the flexor muscles of the arm. At 10 o'clock the temperature was 101.5°; pulse 108; it had a full character. The arms are still flexed. He answers questions in monosyllables; pupils do not respond readily to light; the breathing is normal, and he shows reflex irritation.

Well, that gives you a very good history of a good typical case of insolation. Here is the patient. You can see that he looks a little dull, but still he has his intellect; his eyes look well; there is a little capillary congestion, as you see; the breathing is good; he puts out his tongue readily when asked; that is one evidence of intelligence.

And now the chief indication of treatment in this case is to let the patient remain perfectly quiet; and judging from his condition at the present time, we may look forward to his improving every hour almost, and very likely to-morrow he will seem quite well, with the exception of a certain amount of debility.

Aneurism of the Arch of the Aorta.

I shall present next, gentlemen, a case of aneurism; aortic aneurism. George R., fifty-seven years of age, a native of the United States, an upholsterer by occupation, was admitted on the 10th of May. His family history is unimportant. He says he had good health up to two years ago. He has never had, so far as he is aware, any injury from a strain or violent muscular exertion, but *he has had syphilis*, and *syphilis stands in a causative relation to aneurism* in a certain proportion of cases: that is to say, a sufficiently large number of cases of aneurism in which syphilis has existed to warrant the conclusion that there is a pathological connection, and that is to be presumed in this case.

Now, gentlemen, let me say beforehand, I have not read this history; it will be fresh to me as well as to you; but we are to keep this point in view; there are the symptoms which point to eccentric pressure of an aneurismal tumor. We are often led to suspect aneurism by symptoms which lead us to think there is mechanical pressure upon certain parts, and these symptoms constitute in part the evidence upon which we base the diagnosis.

Now, two years ago, he states here, his voice became weak. Well, that is all that is stated here about that, but the mode in which it is expressed, "his voice became weak," renders it probable that it was not an affection of the voice from a laryngeal inflammation, but from some interference with those muscles which are involved in phonation, and we know that pressure upon the recurrent laryngeal nerve occurs in certain cases of aneurism and produces aphonia, or more or less dysphonia, or difficulty.

He had boring pains in the chest and back. These symptoms should always excite our suspicion; a localized pain in the situation of the aorta anteriorly or in the back. Where a patient complains of persistent pain, localized in the same spot, persisting for a considerable length of time, aneurism should always come into our minds.

He had difficulty of respiration, which may proceed from various causes; caused from pressure, perhaps, upon the trachea, or pressure on one of the primary bronchi; or from pressure on the recurrent laryngeal nerve, involving spasm of the glottis, because we may have two affections from pressure on the recurrent laryngeal nerve, namely, spasm or paralysis.

These symptoms subsided under treatment, and he felt tolerably well up to last March. Does this improvement militate strongly against aneurism at that time? Not at all, for we find cases improve sometimes, especially under certain measures of treatment, in a remarkable way. He felt tolerably well up to last March, when he woke up one morning with great dyspnœa. The voice again became weak, and he was generally debilitated, and he came to the hospital, therefore, on May 10th.

Now, on May 10th this patient was much emaciated. He had anorexia, he was weak, and now a symptom here which is an interesting one, namely, both pupils were strongly contracted, as they are now. You have here a pretty good representation of the *pinhole pupil*, as it is sometimes called. Now, it is not uncommon to have this contraction of the pupil on one side, in cases of aneurism. It is one of the symptoms dependent upon pressure upon the sympathetic nerve of the neck. It is not very common to find it on both sides, showing that pressure is exerted upon both nerves. Now this occurs from various causes. I had not long since a case of aneurism under my observation, in which that was a pretty marked symptom, and I mention this as showing the effect of perhaps too confined attention to one subject: contraction of the pupil is one of the early symptoms in cases of locomotor ataxia, and this patient was supposed to have locomotor ataxia, or it was supposed on that ground he would be likely to have it, the fact of the existence of an aneurism not then being known.

Now for the physical examination. The evidence of a tumor was found on the left side of the chest; there is dullness over the tumor; the pulsations are heaving in character, extending as low as the fourth intercostal space. The heart sounds are increased over the tumor. A systolic murmur is heard, and a thrill is imparted to the hand over the tumor. There is tenderness on pressure over the sternum. The apex of the heart is in the sixth intercostal space, within the linea mammalis. He has bronchial respiration over the right side, with sibilant and sonorous râles; bronchio-vesicular respiration on the left side, with sibilant râles.

I may state what has not yet been inserted here, that a laryngoscopical examination shows paralysis of the vocal cord on the left side, showing that the recurrent laryngeal nerve on the left side is pressed upon. The aneurism is usually on this side when the recurrent laryngeal nerve is involved. The situation of the recurrent laryngeal nerve on this side renders it more easily affected by a tumor than on the right side. His voice to-day is reduced to a whisper. It differs on different days, as it usually does in these cases, owing to the difference of pressure. That is a point of some diagnostic import, for in tumors of a different kind there is not enough variation in the size of the tumor from day to day to cause

this difference of pressure, but there is an aneurismal tumor owing to different circumstances, as pressure of the circulation, the quantity of blood, the force of the heart's action, and so on.

We have here, gentlemen, in this situation a distinct impulse; it is easily felt, and it is of considerable strength. Perhaps you can see that my hand is pressed upward. The thrill I do not perceive at the present time. You perceive that there is dullness over the tumor when we percuss. There is a systolic murmur, easily recognizable, but in itself of no diagnostic import. There is not a double murmur. I have spoken of tumors which are not aneurismal, but pressing upon large arteries, giving us sometimes a double murmur, but we by no means get a double murmur in all cases of aneurism; and moreover the cases are not very rare in which we get no murmur at all over the aneurism. The absence of a murmur is never to be taken as a point of sufficient importance to exclude aneurism. Now there is a sign here which I think is of more importance than it is the custom to attribute to it, and that is the distinctness with which the heart sounds are transmitted to the ear. In cases of aortic aneurism that is a marked feature, as a rule; the heart sounds are very loud, near the ear. The conduction of the heart sound is such that we have that sound. We do not have it in affections of the heart, and therefore, if we exclude consolidation of the lung, that is a point of considerable importance. Both sounds are unusually distinct, so much so that formerly it was supposed the sounds were reproduced within the aortic aneurism; but that is an absurdity, they are conducted there, not reproduced.

Now we look for other signs of aneurism. We do not need any more. We do not need even as many as we have to make the diagnosis, but there are other signs which we are to look over in cases not so clear in a diagnostic point of view as this. Where there is obstruction of the trachea we have feeble respiratory murmur on both sides of the chest. When there is obstruction of one of the primary bronchi, we have feeble respiratory murmur on that side while there may be exaggeration on the opposite side And it is easy to determine whether the trachea, or one of the primary bronchi is pressed upon. When we find these signs, we should at once have our attention directed to aneurism. We should also compare the arteries in the arms, the one with the other. I do not get the evidence that this tumor presses upon the subclavian artery on either side sufficiently to affect the pulse at the wrist.

It is very easy to perceive that this tumor presses upon one of the primary bronchi. I get a well verified vesicular murmur upon the left side, while on the right side it can scarcely be appreciated. This tumor then does press upon the left primary bronchus.

Now, to direct your attention to the heart a moment. The apex is lowered; so stated in the record. Yes, it is a little below the sixth. Is that evidence of enlargement of the heart? No, because a tumor situated as is this will depress the heart somewhat, and carry the apex a little lower without the heart being enlarged. It has been contended that aneurism does not lead to enlargement of the heart, provided the heart be free from valvular lesions. I am not prepared to accept that statement. I cannot but think that the opinion generally entertained is generally correct, that aneurisms do lead, by obstruction which they offer to the circulation, to an enlargement of the heart; but they may cause an evidence of enlargement afforded by the situation of the apex beat by simply pressing the whole heart downward. So that, finding, as we do here, the apex beat somewhat lowered, we are not safe in at once concluding that we have enlargement.

Well, now, gentlemen, I have gone over the important points connected with the physical signs and the diagnostic symptoms of thoracic aneurism. Of course, I might amplify the subject considerably. But the important point, so far as the patient is concerned, relates to the treatment. In a certain proportion of cases the effect of the iodide of potassium in this affection is truly marvelous, as is true of many other remedies which have a remarkably desirable effect in some cases; we do not obtain this effect in other cases. That is true of this treatment in this disease. I have seen in my own experience quite a number of cases in which the effect of this remedy was truly marvelous. This patient is taking that remedy. He is taking ten grains three times a day. But, of course, it will be carried up to as large doses as will be tolerated; at the same time sustaining the patient by nourishing food, but avoiding an excess of food. By no means reducing him, or placing him on a reduced diet. Give him a diet ample for nutrition. I might make some remarks here upon the plan which has been proposed of late years, of absolute rest and a rigid regulation of the diet, the regulation not consisting in a reduced diet, but in an effort to adapt the diet as exactly as possible to the wants of the system. I will simply remark, that in hospital patients it is very difficult to carry that out. I have attempted it in some instances, but not with very satisfactory results.

Lead Poisoning.

I had intended, gentlemen, to bring in several cases, but as our time is limited, we shall have to content ourselves with presenting but one more. This case opens up a very interesting and important subject, namely, the varied effects of lead poisoning. They are varied, and unless we have in our minds the different effects which are referable to this cause, we are sometimes liable to overlook their influence, the patient perhaps, in the meantime continuing to be exposed to the poisoning.

This patient's name is William C., he is forty-six years of age, a native of Ireland, and his occupation of late has been working in white lead. He works in the manufacture of white lead, and inhales the vapor of it. It has occurred to me to meet with a good many cases of poisoning from lead, occurring in persons who are engaged in the manufacture of white lead, so that although I do not know all the details of the manufacture of it, still I know it involves the presence of lead in the atmosphere. It is inhaled.

He was admitted on the 25th of May. The family history has no bearing at all on the patient's disease. He has always been a hard working man, and he has been variously em-

ployed as a sailor, a laborer in iron and sugar works, but for the last four months as a laborer in a white lead factory. He has led a temperate life. He has never had gout, rheumatism, syphilis, or malaria, and has usually enjoyed excellent health. It is not very often that we have presented so clear a previous history as this case presents; in this hospital, I mean.

Three weeks ago the patient began to be troubled with vague pains in the knees and elbows. Well, now, it is pretty common to have patients complain of pain in the joints and limbs. We are very apt not to think much about it, not to form a very definite idea about it. Sometimes we cannot form a very definite idea; but there are various half neuralgic affections, as they are termed, where patients complain of these vague pains. We should have attention directed to other points of inquiry in such cases; look for other evidences of poison by lead.

He lost his appetite, as patients do when poisoned by lead; he suffered from nausea with occasional emesis. That is common. He was constipated, and that is the rule; but, of course, constipation is something common enough. He noticed that his urine was below normal in quantity, and dark in color. I am not prepared to say of how much importance that dark color may be, as indicating poison from lead. An examination of the urine was overlooked in this case, and it is usually overlooked. My impression is that the text books do not give directions for the examination of the urine. Indeed, I have reason to know so, that is, with regard to many of them, because I have had occasion to refer to some of them.

I saw a patient several years ago who had characteristic lead paralysis, but lead poisoning had not been suspected; it had not been thought of; still the patient, a child five or six years old, had wrist drop. Well, when I saw that I spoke to the physician whom I saw in connection with the case, and said I thought it was due to lead poisoning. He said it had not occurred to his mind. Immediately we made inquiry with regard to any exposure to lead, but could find no evidence of it. No others had symptoms of lead poisoning in the house. I looked for every evidence possible, and then it occurred to me to make an examination of the urine. I took it to Prof. Doremus, the chemist, and his assistant at that time examined it and brought the result to me. It was perfectly black, and showed undoubtedly the presence of lead. That it was that led me to look into works and see whether directions were generally given for the examination of the urine for lead, and I failed to find them. I do not assume to say that there are no books that contain it, but it was not contained in the books to which I referred, so that in my clinical medicine I asked Dr. Doremus to give me the details for an examination for lead, and introduced it into that work, thinking it might be useful. I do not think it is often done in order to obtain evidence of lead poisoning. I do not know how frequently we do obtain evidence of it, but I know we do in some cases, from that case I have just referred to. In regard to that case, we finally concluded that the child got lead into the system by the use of certain toys, leaden soldiers, which he played with a great deal, and which he was accustomed to put into his mouth. That seemed to be the only source of lead poisoning in that case.

You will please observe that blue line on this man's gums; the blue line on the gum which we should always look for in cases in which we have any ground for suspecting lead poisoning. It is pretty well marked in this case. I suppose it is more likely to be marked in those who receive lead into the system by the inhalation of the atmosphere coming in contact with the gums, and there meeting with the sulphide of hydrogen. But we get the blue line when it is not to be explained in that way; when a sufficient amount of the lead comes through the blood to the gums to form the characteristic blue line.

This patient became weakened, and lost considerable flesh, but continued to pursue his general vocation, however, until May 18th, when he discontinued his work, owing to exhaustion and general *malaise*. He suffered from severe frontal and occipital cephalalgia. Now, various neuralgic affections are due to lead, and when we have a case of persistent neuralgia, no matter where the neuralgia may be situated, we should think of this as a possible or probable cause. We do have in some cases, but rarely, a very severe cerebral affection, called lead encephalalgia, in which there occurs convulsions and coma, and usually a fatal termination. It has occurred to me to meet with but one well marked example of this effect of lead poison.

Now I come to another point in his history: May 19th, he was attacked for the first time with intense pain in his abdomen, constant in character, but increased in exacerbation, and situated in the epigastric and the umbilical region. At the same time he suffered very severe headache, constriction in the chest, pains in the limbs, anorexia, exhaustion, and great constipation. These symptoms persisted at the time of his admission, May 25th. Now, here we have a group of local symptoms which attended lead colic. It has received also a great variety of other names. It is characterized by pain, usually constant, but increased in exacerbation, situated, as it is here, in the epigastrium and around the umbilicus, not infrequently attended by restriction of the abdomen, unaccompanied by tenderness on pressure; indeed, pressure sometimes affording relief; and accompanied by obstinate constipation, and absence of fever. The want of tenderness on pressure, the constipation, the absence of fever, at once suffice to exclude all the inflammatory affections which are liable to give rise to colicky pain, and when we meet with these symptoms, we should at once think of lead, and direct our attention at once to the possible and probable sources of the introduction of this poisonous principle into the system.

On examination he was found to possess a well marked blue line upon his gums. Nothing abnormal was detected in any of his thoracic or abdominal organs. His urine was high colored, and had a specific gravity of 1.026; it contained no albumen. He has had no paralysis.

Well, now, what is to be done in a case like

this? What is the treatment? Constipation is a symptom which claims attention, but it does not claim as much attention, it seems to me, as it has heretofore received. It is the old practice, one of the traditional things, that patients with lead colic must be purged, the purgation kept up, and that active cathartics should be employed, as those of a milder character did not effect the object. Well, constipation is a symptom which claims attention, of course, but I do not know that we produce any marked impression upon the disease by overcoming the constipation. We should endeavor to secure such an evacuation of the bowel as to prevent any inconvenience from that cause. Aside from that I do not know that the use of cathartics effects any very important object. However, of course it claims attention. And at the same time the pain is to be relieved. If the patient is suffering extremely from pain, it is important to relieve it, and these objects conflict with each other. We cannot well give cathartics and opiates at the same time, as one neutralizes the other. However, we can effect something if we do not give our opiates in too large doses.

This patient, gentlemen, does not belong to my division, but the treatment has been as follows: he was put upon the sulphate of magnesia and the camphoretted tincture of opium, of each an ounce, and water added to make a pint, and he got of this an ounce every two hours. In addition to that he was given the iodide of potassium, ten grains three times a day. For the past twenty-five years and more we have followed the observations made by a French observer, who published a monograph on the subject of lead poisoning, and gave a series of cases which seemed to show conclusively that the iodide of potassium exerted a curative effect upon this disease in this way: it formed combinations of lead in the tissues, wherever the lead might be deposited—for no doubt the effects are due to the actual presence of lead in different tissues, although it has not been exactly ascertained as yet in what tissues it especially is. But it formed combinations which were soluble, and in this way the lead was eliminated through the kidneys. And ever since that time this has been the standard remedy in the treatment for lead poisoning. Well, with regard to the effect of it, I think a good many would state that their experience accords with mine, that we do not get such evidence of its special effect as we were led to suppose we should by the above named observations and writings. At the same time, it by no means has been shown that it does not have more or less effect in that way, and therefore, especially in the absence of any other remedy at the present time which accomplishes this object, and this being the desirable object, this remedy is given; and the moment we reach the diagnosis that we have to deal with a case of lead poisoning, the iodide of potassium comes in as a matter of course.

Well, this patient has been taking ten grains of the iodide of potassium three times a day, and it will probably be increased in quantity. Now, what has been the effect of that treatment? The patient has been in the hospital only since May 25th. He says his pain has been much relieved. It was necessary to resort to the use of croton oil in order to make his bowels move, and that proved successful, and he says he was relieved by it. Well, there is one great comfort in the use of active cathartics, whether they are really indicated or not; whether they do any good or not; they are very apt to satisfy the mind of the patient. And a patient who takes a dose of croton oil is conscious of the inconvenience attending a good many evacuations, and is very apt to think that something is being done, and that that something is very likely to be useful. It has a good moral effect anyhow. I do not mean to say that that covers the whole ground, but sometimes it is not unwise to embrace that consideration in prescriptions.

Well, that is the case, gentlemen; a well marked case of lead poisoning, and it is a case which shows so far the good effect of the treatment which has been pursued, and which is now being pursued.

Editorial Department.

Periscope.

Malignant Syphilis.

Dr. Krowczynski, of Lemberg, relates the following case in *Vierteljahresschrift für Dermatologie und Syphilis*, 1 Heft, 1880:—

An unmarried woman, aged thirty, of healthy appearance and good muscular development, was admitted into the hospital on November 4th, 1875. The patient stated that her present illness began in October, and followed intercourse with a man who was afterwards ascertained to be suffering from syphilis. On examination, two indurated sores were found in the neighborhood of the commissure. Both labia were œdematous, and the inguinal glands were enlarged, hard, and free from pain. There was also a white discharge from the uterus. A lotion of sulphate of copper for the sores, and a vaginal injection, were ordered. The ulcers soon began to spread, and were dressed with powdered camphor. On the 8th of November they had united, forming a large horseshoe-shaped gangrenous sore. The inguinal glands became larger and tender on pressure. The strength decreased, and on November 20th shivering took place with a temperature of 100.4° Fahr. November 21st, temperature, morning, 101.8°; evening, 102°. The temperature remained above 101.4° until December 9th, on which day there was a violent shivering fit, with headache, pains in the limbs, and general malaise. The spleen was enlarged. The urine was free from albumen. On December

10th a general measles-like rash appeared. Temperature, morning, 101.8°; evening, 101°. The ulcer of the genitals remained as before. During the following six days the temperature was always below 101°. On the 15th shivering again occurred, the evening temperature being 103.5°. Next day the eruption had become papular, the papules being about the size of a lentil. The temperature during the following ten days fluctuated between 100.4° and 101.4°. On December 25th there was a third attack of shivering, the temperature rising to 103.5°, and a red halo was noticed round each papule. Vesicles and pustules now appeared on the skin, and the temperature fell to 100.8°. The pustules ruptured, and left small ulcers. On January 15th, 1876, the ulcers were of the size of half-crowns, but the general condition had slightly improved. The genital ulcer remained as before as to size, but was cleaner, and granulations were springing up at the edges. The patient from this time improved steadily; the temperature fell to 100°. The appetite returned, and the ulcers on the body began to heal. On March 27th the primary sore was healed. On April 3d syphilitic patches on the palatine arch were noticed for the first time. The ulcers of the skin healed, but left raised hypertrophic scars, which soon afterwards broke down into ulcers. The subsequent cicatrization occupied some time. No further relapse took place after this; but the patient remained in the hospital until January 4th, 1877, by which time she had completely recovered. The man from whom she had contracted syphilis was now traced, and was found to have suffered very mildly, condylomata on the genitals and in the throat having been his only symptoms.

Hemlock in the Treatment of Cancer.

Henry Kennedy, M.B., of Dublin, writes as follows to the *Lancet*, August 28th, 1880:—

At present, when the profession are in expectation of getting a cure for this frightful disease, it has seemed to me advisable to call attention to a remedy which used to be in great vogue, but which has most unaccountably fallen into disuse. There is nothing, indeed, in medicine more remarkable than the fact of the way in which medicines, patent medicines, too, are forgotten or thrown aside. Into the causes of this I am not now going to enter, but simply to state a well-known fact. The medicine I would now recall to notice through your widely read pages is the well-known hemlock; and in saying this I am well aware of Harley's most valuable observations on this very drug. But it is as a remedy for cancer, in some, at least, of its forms, that I would here speak of it. Now, sir, the evidence of the power of this medicine over cases of cancerous disease is very great indeed; and that man would do well to the profession who would simply make out a list of the cases where it has been so employed. Not that every case was bettered by its use, for this is not to be looked for, but that the majority were. It will be observed that I used the word "bettered;" as, if I said "cured," it would be at once concluded what I advanced would not be worthy of a moment's consideration; though certainly there are plenty of cases in which a complete cure was effected; and this in cases of what seemed both open and occult cancer. This evidence, it appears to me, seems quite sufficient to authorize us to fall back on the remedy. It has been objected to the use of hemlock that its preparations are uncertain, and do not contain the active principle. Granting that this is true, in a degree, it is certainly no reason for giving up its use. But I think that, with such a formidable disease as cancer, it would be well to use the hemlock which grows in other climates than Great Britain; for there can be no doubt that it is a much more vigorous plant abroad than among ourselves; and indeed the parties who first introduced it in Germany enter into particulars as to the locality in which it grows and the time of the year it is to be plucked, which prove their opinions on the matter.

The dose of the drug in common use, I may state once for all, is too small. The British Pharmacopœia puts down the dose of the extract at from two to six grains, which is totally useless. To an adult not less than ten grains may be given; and I find a very suitable way of giving it is in an eight-ounce mixture, of which half an ounce, by measure, may be taken three times a day, each dose containing ten grains, which can be readily increased, and which will be needed in such a disease as cancer, for the dose must be pushed so as to produce its physiological effects. I speak specially of the extract, as, on the whole, presenting the easiest mode of administration. It is not equal, I am aware, to the succus conii, either in elegance or power; but the latter has very serious drawbacks, one being its expense, and the other the quantity of spirit which it contains. Used in the way indicated, I have found hemlock a very valuable remedy. In my hands it seems to possess two distinct effects, the first being the power of allaying pain, a matter of so much moment in cancerous disease; and the second, its restorative power on the frame, as shown by the change in the appearance of the patient; and, should there be an open ulcer, the alteration for the better in the sore. I have seen no absolute cure of cancerous disease, but I have seen several cases where the disease has been beyond question kept at bay, and the life of the patient by so much bettered.

How to Feed the Sick.

Dr. E. Engals, of Chicago, makes the following remarks on the above subject, in the Chicago *Medical Journal and Examiner*, for September, 1880:—

Dr. Tanner's experiment of long abstinence from food has attracted much attention, and, judging from the tone of the daily press, I think the public deem it an idle and foolish exhibition; but in its scientific aspect it has great interest, and will doubtless be repeated by others, and we shall have champion fasters as we now have champion rowers and athletes of the diamond field and prize ring. From this we may come to give due weight to the capacity which the body has to feed upon itself, and this will lessen the fear that patients will starve, and will

help us to wait patiently for physiological repair of pathological changes. It is often remarked that truth is apt to be midway between extremes; yet public opinion goes from one extreme to another, and though we are conscious of our liability to this fault, we are generally ready to follow the pendulum through the entire arc of its motion. Within my memory the common practice was to interdict even a cup of cold water from the parched lips of a fever patient famishing with thirst. After the favorable termination of a protracted disease, when the attenuated body was clamoring for nutrition to restore what had been lost, food would be withheld to a degree that much prolonged the period of convalescence. Then came a change, and the direction of all in authority was that the sick should be "fed well." This was called "supporting treatment," and as all knew that the body was sustained by nutrition, the practice strongly addressed itself to both public and professional favor. As a consequence, patients who loathed even the thought of food and abhorred its sight were compelled to take it in considerable quantities at frequent and stated intervals, as if it were a medicinal dose. Under such circumstances food is not well digested, but is partially decomposed in the alimentary canal, and some products of such decomposition may be taken up by the absorbents to poison the blood, and the debris while retained disturbs the whole system and is thrown off by the stomach and bowels with difficulty. In ordinary sickness it is best that the patient should order his own diet list, and allow the physician to expunge from this what he judges may prove harmful. If the patient does not desire food it is generally better to leave him without it, and I can attest, from frequent observation, that this may be done with entire safety until a condition of extreme exhaustion has been reached, and even then, if the patient's desire for food does not return, stimulants are oftener indicated medicinally than nutrients. We should not forget that in sickness the digestive organs are enfeebled as well as the nervous and muscular and their labors should be proportionately lightened. It is many years since I have seen a sick person injured from having taken too little food, while I have seen many who have suffered from taking too much.

Reviews and Book Notices.

NOTES ON CURRENT MEDICAL LITERATURE.

——A reprint from the Boston *Medical and Surgical Journal*, June 3d, 1880, contains a paper by F. R. Sturgis, M.D., on the "Affections of the Middle Ear During the Early Stages of Syphilis."

——We acknowledge the receipt of the "Report" of the Indiana State Health Commission, for 1879, containing Mortality Tables, etc., together with some excellent papers connected with public hygiene.

——"The Diagnosis of Malignant Tumors of the Upper Jaw," is the subject of a paper by L. McLane Tiffany, M.D., which comes to us in the form of a reprint from the *Transactions of the Medical and Chirurgical Faculty* of Maryland, 1880.

——Part VII of "Atlas of Skin Diseases," by Louis A. Duhring, M.D., published by J. B. Lippincott & Co., contains the following beautifully colored plates, taken from nature, with history of the cases: Eczema (pustulosum), impetigo contagiosa, syphiloderma (papulosum), lupus vulgaris.

BOOK NOTICES.

Official Register of Physicians and Midwives to whom certificates have been issued by the Illinois State Board of Health under the Act of May 29th 1877; and of Physicians and Midwives who have registered in the County Clerk's Offices under the Act of May 25th, 1877, and who claim to have practiced in Illinois ten years prior to July 1st, 1877, but to whom no certificates have been issued. Springfield, Weber & Co., State Printers, 1880. pp. 252.

This is the most complete work of its kind that we have ever examined. First, a copy of the act regulating the practice of medicine and of the board of health act is given. Then follows an alphabetical list of the counties in the State, with the physicians therein to whom certificates have been issued, giving the name, date of registry, school, residence and post office, age, nativity, total number of years in practice, and number of years in the State of Illinois; date of issue of certificate, place of graduation, or other reason why issued, date of diploma or license, and the date on which it was recorded. Then comes a list of the registered physicians to whom no certificates have been issued. Next, a list of midwives to whom certificates have been issued, with full information as to their nativity, age, number of years in practice, etc., followed by a list of those to whom no certificates have been issued. Finally, a summary and general remarks are given. A complete index is also appended.

Some of the excellent results of the acts above mentioned and their rigid enforcement, which we shall have occasion to mention elsewhere, will, we hope, cause other States to follow the example of Illinois, and purge themselves of quacks and unqualified practitioners. The Register shows that both care and labor have been expended in its composition, and we do not hesitate in saying that it is a credit to the Illinois State Board of Health.

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THE NATURAL HISTORY AND SELF-LIMITATION OF DISEASES.

One of the more prominent of the American Schools of thought in Medicine is that which teaches the self-limitation of diseased process as an event which cannot be retarded nor hastened, and recommends as the most instructive of all clinical investigations the observation of this process—that is, to look on and do nothing. The master of this school is the elder Flint, and he has taught his precepts for many years, but with more and more precision as he has advanced in life. Apparently he admits no exception. In a recent article he speaks of pulmonary phthisis as also a self-limited disease; the only difficulty which the observer experiences, that the cases, "by a large majority," die off before the disease has had a chance safely to reach its limit. It may be a pardonable comparison to suppose it like those steady topers who always set themselves a limit in their potations, but always get drunk before they reach the limit.

In England, Forbes wrote a popular treatise on the natural history of disease, a generation ago nearly, in which he advocated views not dissimilar from those of Flint, and on which the latter evidently has based many of his theories.

The real originator of this school was, however, Professor Schönlein, for a long while Professor in the Universities of Zurich and Berlin, a man of great influence in his day, and of profound insight into all the departments of medicine (born 1793). He taught that diseases are the manifestations of definite, regular, pathological processes, which have their beginning, progress and termination; influenced, indeed, in their outward exhibitions, by the idiosyncrasies of the subject, the character of the tissues, the environment, age etc., of the patient, but not to an extent which materially affects their progress or alters their real nature. He was the founder of what the Germans call *Die Naturhistorische Schule*, and, with various modifications and additions, his opinions are those which the authors previously mentioned have adopted and defended.

Schönlein's teachings were received with respect, and even enthusiasm, in Germany, and to this day have a very respectable following. Indeed, some of them have universal acceptance as acknowledged results of the fullest experience. The weight he always laid upon an exact diagnosis was of great benefit to the advance of that branch of science. But, on the other hand, there is little doubt but that a certain degree of neglect of therapeutic measures naturally flowed from a belief that the pathological process had a certain course to go through, which would not be much abbreviated by anything the physician could do. Hence the treatment of the Natural Historical School is eliminated down to intelligent nursing, and letting the patient fight it out. Occasional anodynes, to relieve pain, a selected diet, fresh air, repose, quiet and cleanliness, these about exhaust the resources of the physician. Anything like specifics are condemned as follies; all talk of "curing" a disease is criticised as quackery; the whole domain of "heroic medication" is relegated to the lumber room, and special formulas or combinations are laughed at as inapplicable to any disease.

This reaction against the needlessly active measures of an older school, against the lancet and polypharmacy, is far more attributable to the dissemination of Schönlein's doctrines than to those of Hahnemann, to whom it has often been attributed. The objections urged by the latter were usually trivial or ridiculous, whereas the theory of the former was highly philosophic and plausible.

That it has been carried altogether too far we think is becoming apparent. Protests against it are coming from various directions. Dr. L. F. Warner, at a recent meeting of the American Medical Association, made the following sensible remarks on the self-limitation of disease:—

"I believe that much harm has been done by doctrines widely taught in some parts of the country, one of which is the self limitation of disease, which, when fully accepted, leads the physician to feel that he has no power to cut short or limit disease. By way of illustration: Where disease commences in a case of ovaritis, and extends to the peritoneum, and is limited only when it has no more peritoneum to affect, and the death of the patient ensues. It is a fact well known by every physician of experience, that disease, instead of being self-limited, may, by a judicious course of treatment, be itself limited, as in the above case, to the ovary or a small part of the peritoneum, a quarter, a half, or two-thirds, and the patient's life saved, instead of letting the inflammation go uncontrolled and result fatally."

The study of disease as a natural phenomenon, however entertaining to the observer, is not comfortable or beneficial to the patient. The results of it are conspicuous in the mortality reports from some German and some American hospitals, where this plan is in vogue, as we have heretofore shown in this journal. The time has come when the assertions of this school need a close scrutiny and a sharp criticism. The nihilistic therapeutics they teach is a danger to the community, and the assumed impossibility of controlling disease is no sound nor satisfactory doctrine to impress on a rising generation of doctors.

—The *Chicago Medical Journal and Examiner*, July, 1880, states that the Faculty of Rush Medical College have changed the time allotted to their practitioners' course, and have announced that the lectures for post-graduates will be given in the month of April next year, after the annual winter session is completed.

Notes and Comments.

Therapeutical Notes.

DRESSING FOR BURNS.

The *Canada Journal of Medical Science*, for September, 1880, recommends the following formula:—

℞.	Iodoform,	ʒj
	Spermaceti,	ʒij
	Extract of conium,	ʒij
	Carbolic acid,	gtt. x. M.

Sig.—Spread on some soft material and cover the burned parts.

SALICYLIC ACID IN SCARLET FEVER.

Dr. J. Murphy states, in the Peoria *Medical Monthly*, that he has found the following formula of great benefit in the treatment of scarlet fever:—

℞.	Acid. salicylis,		ʒij
	Mucilag. acaciæ,		
	Aquæ rosæ,	āā	ʒiss
	Syr. tolu,		ʒj. M.

Of this mixture one or two teaspoonfuls, according to the age of the child, should be given every two hours until a favorable impression has been made on the throat and on the general symptoms. When this has been accomplished the intervals of administering the medicine should be extended to four or five hours, varying the periods as the changing symptoms of the disease may indicate the propriety or necessity of. During the existence of the acute symptoms the use of the acid should not be permitted to interfere with the sustaining treatment, which is so essential in this disease. Nor should its continued use after the acute symptoms have subsided prevent the adoption of the tonic treatment so positively required during the period of convalescence.

THE TREATMENT OF ULCERS.

Mandelbaum, in *La Presse Médicale Belge*, advises, in old ulcers of the legs, scraping, followed by the application of iodoform. When new granulations are formed, a plaster of mercurial soap may be applied, fixed by means of a bandage.

Prof. Clay's New Cancer Cure.

Edmund Andrews, M.D., of Chicago, in an article on the above subject, published in the Chicago *Medical Journal and Examiner*, for August 1880, states that experiments made by himself and others in that city would seem thus far to corroborate the assertions of Prof. Clay. But, says he, an important question arises as to whether Prof. Clay is not mistaken in giving

Chian turpentine, rather than sulphur, the primary place in his prescriptions. The malignant element in cancer appears to be the non-adherent, multiplying cells which fill its cavities, and so far as we can judge, its diastrous results are dependent on the enormous power of reproduction of these bodies. If there be a substance in the Materia Medica which can act upon these cells as antiseptics act upon bacteria, by destroying their life, or can modify their vitality, so as to check their multiplication, as arsenic checks the production of epithelial cells in scaly diseases of the skin, such a remedy will cure cancer. Cells already in existence would either be absorbed or remain harmless, if they no longer multiplied.

These cells, in short, suggest to one many analogies with such low forms of organic life as are destroyed by sulphur, arsenic, carbolic acid, etc. The analogy is vague, and not implicitly to be trusted; nevertheless it strongly suggests that the efficacy of this combination may be due to the cell-destroying power of the sulphur or of sulphurous acid, and that the turpentine may be only an adjuvant. Be this as it may, whenever we are unable to obtain genuine Chian turpentine, it would seem best, under the circumstances, to give sulphur in full doses, and to substitute the resin of the *Pistacia lentiscus* for that of the *Pistacia terebinthus*.

The *British Medical Journal* says that the Chian turpentine has been tried in the London Cancer Hospital without any success. It does not state whether the sulphur was used with it or omitted, nor whether an indisputable article of the turpentine was obtained.

Perforating Tuberculosis of the Roof of the Skull.

Dr. R. Volkmann states, in *Centralblatt für Chirurgie*, 1880, No. 1, that he has had the opportunity of observing about twelve almost typical cases of this comparatively rare affection. It consists in a process of caseation leading to melting and necrosis of the cranial bones, together with purulent separation of the dura mater, as well as of the external periosteum, which, however, always affects only one spot of the roof of the skull. A tolerably large abscess is formed externally, mostly with ill-defined symptoms; its internal surface, after spontaneous or artificial evacuation of the cheesy pus, was lined with numerous granulations containing caseous miliary tubercles, the bony tissue being also of cheesy consistence at a spot as large as a pea, often in the form of a small sequestrum, of the entire thickness of the cranium. If left alone the diseased parts heal extremely slowly, the caseous change may progress, and in many cases pus is accumulated between the cranium and dura mater. The author, has, therefore, in four cases, after freely laying open and evacuating the external abscess under antiseptic precautions, trephined the affected bone, and scraped out the dura mater, as far as it was fungous. The result has been very favorable with regard to the course of the wound. The true healing, however, was very protracted in half of the cases thus treated. The cranial integument, which had been detached by the abscess, always united directly.

Alcohol and Animal Heat.

Dr. Bevan Lewis, in a paper contributed to the *Journal of Mental Science*, April, 1880, has published some interesting observations on this subject. In opposition to the view that large doses of alcohol lower temperature by directly checking tissue metamorphosis, Dr. Lewis has found, by the use of the calorimeter, that in animals the ingestion of alcohol is invariably followed by an augmentation of the total heat formation, and that though thermogenesis may receive a slight check as a primary effect of the alcohol, the ultimate issue is invariably "the formation and discharge of a much increased heat product, often double or treble the normal amount." Dr. Bevan Lewis, however, has observed a primary check to heat formation when small doses of alcohol are given. This check was followed, when it was appreciable, by an increased heat formation, proportionate in extent and time to the size of the dose. The climax of heat formation was found to be usually coincident with the registry of the lowest bodily temperature. The restitution of bodily temperature is somewhat sudden after small doses, but extremely slow after very large ones. Dr. Lewis concludes that, with regard to the action of alcohol on animal heat, the characteristic feature is that it greatly increases the heat product, while the dispersion of the freshly formed heat is facilitated by peripheral vaso motor paresis. The author of the paper, which embodies the valuable results of many interesting experiments, lays down a notable caution regarding the simultaneous use of chloral hydrate and alcohol. He says: "The action of chloral as affecting thermogenesis being similar to that of alcohol, we obtain by their combination a most powerful vaso-motor depressant, and one which should be used with great caution."

The De Lesseps Canal in its Relation to Hygiene.

Dr. G. Halsted Boyland, in a communication to the *Independent Practitioner*, for July, 1880, on the above subject, points out that the proposed inter-oceanic canal, in order to be productive of the greatest possible hygienic benefit, both by land and sea, should be built through the most marshy and sickly part of the isthmus. Conducting large bodies of water through marshy districts, says he, acts directly upon the districts themselves, and brings about, also, certain atmospheric chemical changes. The numberless stagnant pools, sluggish streams and morasses, lying in the direct line along which the canal will be built, will be opened up and drained of their miasmatic infectious properties, while the motion of the water in the canal will not only exert a cooling influence upon the atmosphere, but vapors arising from its surface will neutralize those malarial mists so characteristic of the tropics. The sanitary benefits derived will then be twofold: 1st. Those affecting the region itself, land. 2d. Those affecting foreign intercourse, maritime.

We have not the space to enter into the forcible arguments of the Doctor, who evidently has studied the subject most thoroughly, and familiarized himself with the topography of the country, but there can be no doubt but that the effects of such a canal, with the consequent drainage of the surrounding country, would be beneficial both to animal and vegetable life, neither of which flourishes on the isthmus, when we except aquatic plants.

CORRESPONDENCE.

Report of a Case of Strangulation of the Small Intestine, and a Case of Gall Stone Simulating Aneurism.

ED. MED. AND SURG. REPORTER.

I send you reports of two cases, thinking that they may be of interest to your readers, as they certainly were to me :—

CASE 1.—Julia W., six years of age, had been feeble from birth. When two days old she had an attack of constipation, abdominal pain and vomiting, after which the bowels moved again, and she became better. From that time on she continued to have such attacks at intervals varying from a few days to a month, rarely going longer than two weeks. Her vomiting was never fecal. As she became older, when the attacks came on she would go off by herself, preferring to be alone. She was always puny, though between attacks her appetite was good. She seemed to dislike active exercise. The only treatment that ever seemed to have any good effect was blue mass in large doses. Intestinal obstruction was suspected, though owing to the periodicity of the attacks and to the fact that the patient lived on the bank of a sluggish stream, it was thought that malaria might possibly account for a part, or, perhaps, all of her symptoms. Last June she was taken as usual, but instead of recovering on the third day, as was her wont, with a free motion of the bowels—the motion, instead of being colored with bile, was bloody—the patient went into collapse and died in a few hours. This was her history, as I learned it from the parents and the physician in attendance, when I was asked to make a post-mortem. On opening the abdomen, the whole mass of small intestines appeared of a dark mahogany color, and two or three ounces of bloody serum were found in the cavity. The small intestines adhered slightly to each other. The cæcum and appendix vermiformis were found in the angle formed at the junction of the transverse and the descending colons. The ascending colon passed from left to right across the body, doubling upon itself as it became the transverse colon, below which it lay. Below this was a hard cord, twisted from left to right, at the end of which hung the whole mass of the small intestine—gangrenous. The mass had to be turned on its axis four times before the cord fully untwisted. This proved to be composed of the jejunum on one side, on the other the ileum, and between them the axis of the mesentery. These made a flat band of from two to two and a half inches in breadth. Untwisting the cord brought the ascending colon back to the right side.

The cæcum and the ascending colon were not, as is usual, firmly attached to the right side by cellular tissue, and covered by peritoneum only on their anterior and lateral surfaces; nor yet, as occurs more rarely, did they have a meso-cæcum and meso-colon attaching them firmly to the right side, but allowing somewhat more freedom of motion; but they were completely surrounded by peritoneum, which, until it merged into the transverse meso-colon, was continuous with and a part of the mesentery. The attachment of the root of the mesentery was not, as is common, oblique, from the left side of the second lumbar vertebra to the right sacro-iliac symphysis, and about six inches in length; but was hardly half that length at the origin of the superior mesenteric artery, and transverse or nearly so. By this malformation the whole mass of the small intestine, together with the appendix-cæcum and ascending colon, hung in the abdominal cavity by a flat band six or eight inches long, with no points of attachment to hinder the band twisting on its axis, in either direction, till stopped by its own elasticity. It would seem that in the attacks preceding the fatal one the mass of intestines, by its vermicular motion, had twisted the axis of the mesentery till the bowel was closed, and then after a time had spontaneously untwisted. The fact that this twisting closed not only the lower end of the ileum, but the upper end of the jejunum as well, accounts for the absence of fecal vomiting. In the last attack the twist seems to have been so firm that it produced not only obstruction, but complete strangulation of the bowel, by more or less completely closing the superior mesenteric artery and vein. So far as I can

find in the works to which I have access, the case is unique, both in the peculiar attachment of the appendix-cæcum and ascending colon, and of the root of the mesentery, and in the extent of bowel strangulated.

CASE 2.—Mrs. R., a farmer's wife, called, January 9th, 1878, to consult about a difficulty with her stomach. She was of a sallow complexion, dark hair, and quite spare. She gave the following history: She was thirty-eight years old. Her father and one sister had died of consumption. The youngest of her three children was about six years old. Two years after its birth she miscarried, since which time she had been a little troubled with leucorrhœa and backache.

Her present ill health had begun some two years since, by attacks of distress in the stomach attended with thirst and dryness of the mouth. These had continued to recur at intervals of a month or more, gradually passing off in from a day or two to a week. She did not describe it as a pain, but as a "distress;" a sense of "weakness" or "goneness," referred to the epigastrium. During the attacks the distress was not constant, but paroxysmal; there was no nausea or vomiting; they always left her weak and exhausted. Between attacks she usually felt a sense of weight after eating. Her stomach was inclined to sour and her food sometimes would regurgitate; her tongue was flat, pale and slightly coated; her bowels moved usually once in from two to four days; her urine was very scanty; often not more than from two to four ounces in twenty-four hours. I found, however, that she often did not drink more than a teacupful of fluid during the day. Her urine did not scald her, but was usually loaded with a heavy white sediment. It was not albuminous. She had been long troubled with nasal and bronchial catarrh, but not enough to seek medical advice. Her lungs on percussion were somewhat too resonant. The sternum was rather prominent, and the respiratory murmur was a little harsh. Her heart sounds were normal. The epigastrium was very tender to pressure; the hypogastrium less so. Pressure at other points on the abdomen caused pain, which was always referred to the epigastrium. Supposing the case to be one of gastric catarrh with nervous trouble, I treated it accordingly, and the symptoms improved somewhat.

On March 5th I discovered, just below the liver, at the external border of the right rectus muscle, a bulging of the abdominal wall which felt as though it were caused by a hard body, about the size and shape of a hen's egg. But as I attempted to accurately determine its size, by palpation, it slipped from under my fingers, and I could not again find it. The place where it had been was very tender, so that I could not make deep pressure, but there was pulsation and a slight thrill perceptible at that point, and with the stethoscope a loud bruit could be heard, synchronous with the heart's systole, becoming rapidly indistinct as the end of the stethoscope was moved from that exact spot. It could not be heard plainly if the patient turned on either side. I concluded that it was a case of aneurism, and treated her with heavy doses of iodide of potassium and rest, under which her general symptoms greatly improved and the local tenderness very much diminished. After this I could sometimes find the tumor, sometimes not. But when I did find it it would disappear on pressure, giving to the touch the same impression that a hard, round, slippery body does as it slides from out your grasp. The bruit and the thrill were, however, never absent.

In the fall of 1879, I removed, and the patient passed from my charge. July 2d, 1880, I received notice of her death, with a request to attend the autopsy. From her attending physician I learned the rest of her history. In November, 1879, she was again confined, and did not recover her usual health. By February, 1880, she had become very much reduced and employed a noted quack in the vicinity, under whose care she remained two months. She then employed a regular physician, who found her jaundiced, her gall bladder enormously distended, and a suspicious area of dullness at the apex of the right lung. Under treatment with nitro-muriatic acid, and after passing a number of small gall stones per rectum, the gall bladder resumed nearly its normal size. She had also at this time a cough, with purulent expectoration, both of which ceased in a short time. Her health, however, did not return. Diarrhœa with severe colicky pains and hectic set in, and she died of asthenia.

Autopsy held twenty-four hours after death. The body was much emaciated, rigor mortis well marked. The heart was normal. Cheesy nodules were found here and there on the left lung, especially at the apex. There was a small cavity in the apex of the right lung, the upper and middle lobes of which and the lower lobe posteriorly, were solidified and studded with cheesy nodules. There were no pleuritic adhesions except at the apex of the right lung; spleen and kidneys were normal. The left ovary contained a small cyst, twice the size of a pea. The omentum and both the visceral and the parietal peritoneum were studded with nodules like those found in the lung. The intestines were constricted in several places by annular deposits of like character. The largest mass, about the size of a hen's egg, was in the mesentery. To this deposit the small intestines had adhered, once in about every eighteen inches, forming a mass of loops. The liver was adherent to the diaphragm by its upper surface, which was studded with similar nodules. Its substance seemed normal. The gall bladder was somewhat enlarged, and its walls thickened. It contained a rough gall stone freely movable, elliptical in shape, one and three quarter inches long by one and a quarter wide, by three quarters of an inch thick. As I carried it to the fundus of the gall-bladder it projected considerably beyond the lower border of the liver. Holding it in this position and replacing the abdominal wall, there appeared a tumor in the same place, presenting the same characteristics both to sight and touch, and disappearing in the same way on pressure, as that I had found over two years before; there was nothing like an aneurism to be found. It is, I believe, rare to find, on post-mortem, so extensive disease of the lung where cough has been

almost entirely absent. But the principal interest of the case was in the solution it gave to a set of symptoms which during life were very puzzling. A physician of considerable experience, who saw the case with me on one occasion, when the tumor was apparent, and who also examined it with the stethoscope, agreed with me that it was probably a case of aneurism. Two or three who examined it without the stethoscope, at times when the tumor was not apparent, expressed their opinion (of course in a manner accordant with the spirit of the code) that there was not anything like an abnormal growth there. The only way that I can now account for the bruit and thrill, is by supposing that the gall-stone pressed upon some one of the right branches of the cœliac axis. L. B. TUCKERMAN, M.D.

Austenburg, Ohio, September 4th, 1880.

NEWS AND MISCELLANY.

Jerusalem as a Winter Resort.

The *Medical Times and Gazette* says that the European population of Jerusalem has increased of late to an immense extent, owing, in some measure, to the enthusiasm with which Holman Hunt describes the glories of the climate, and the intense interest excited by its associations. The complete success which has attended the cleansing of the streets, and the adequate supply of water, under the supervision of the German sanitary inspectors, have transformed the city from an unsavory labyrinth of mud hovels to a picturesque Eastern town, with cooling fountains and clean white dwellings, adorned with verandahs and abundance of sweet-smelling creeping plants. It is suggested that the Holy City may become a winter resort with the fashionable, in place of Rome.

Anæsthetics in 1651.

The *Lancet* informs us that in a recent work, entitled "Histoire de la Médecine à Troyes," Dr. Guichet relates that the College of Physicians of that town brought an action against a certain Nicolas Bailli for administering internal remedies to his patients and *putting them to sleep*. In defence Bailli declared that having observed that in great operations, amputations, incisions, actual and potential cauterizations, many patients slipped through his hands for want of sleep, he had studied the secrets of nature, and had at last found a cordial, or marvelous essence, which put them to sleep softly, and appeased their sensibility to pain.

The Night Medical Service.

The *Medical Record*, September 4th, 1880, informs us that the Night Medical Service in New York is now in full working order. The number of precincts in the city is thirty-five. The number of physicians who have been registered for duty on the Night Medical Service is 329. This represents all the applicants for registration with one exception. The exception is that of a physician who was implicated in a recent criminal prosecution.

Reported Cholera in Russia.

Russian journals report an outbreak of "cholera" at Saratov, on the Volga. The scanty particulars given suggest that the report refers to an outbreak of choleraic disease, probably caused by the consumption of some poisonous article of food, after the manner of the recent fatal choleraic outbreak at Welbeck.

Buchanan Captured.

Dr. Buchanan, of bogus diploma fame, who, it will be remembered, leaped, or pretended to leap into the water from the deck of a Delaware ferry-boat recently, in order to create the impression that he had committed suicide, has been captured in St. Clair, Michigan.

OBITUARY NOTICE.

—Professor W. T. Wythe, M.D., died at his residence in California, June 26th, aged thirty-three. He had for several years occupied the Chair of Anatomy in the Medical College of the Pacific Coast, and was much esteemed by his fellow physicians.

QUERIES AND REPLIES.

Dr. H. L. C., of Ohio, requests some one to give him a sure remedy for eczema rubrum of the forehead and face.

Dr. J. M., of Indiana.—1. No, certainly not. 2. We refer you to an article on the subject, by Stephen V. Crooks, M.D., of Lake, Indiana, which appeared in THE MEDICAL AND SURGICAL REPORTER for July 12th, 1873.

MARRIAGES.

EARLE—VESEY.—On August 26th, 1880, at the residence of the bride's parents, Ellersile Place, near Petersburg, Va., by the Rev. Mr. Logan, Frank M. Earle, M.D., of Philadelphia, and Mary E. Vesey, formerly of Philadelphia.

EYRE—GAUSE.—On September 1st, by Rev. E. D. Fendall, Frank Eyre, M.D., and Jessie, second daughter of O. B. Gause, M.D., all of Philadelphia.

GEIB—LEEDS.—On Monday, September 6th, by the Rev. T. T. Munger, North Adams, Mass., Dr. Henry P. Geib and Jennie C. Leeds, both of Stamford, Conn.

HURLEY—HART.—In Trenton, N. J., August 31st, 1880, by Rev. D. Stewart, Dr. Lewis P. Hurley and Miss Abbie S. Hart, both of Hopewell, N. J.

LOUGHRIDGE—EDWARDS.—At Danville, Ky., September 1st, by Rev. Dr. J. Edwards, Samuel O. Loughridge, M.D., of Peoria, Ill., and Effie M. Edwards, daughter of the officiating minister.

TAYLOR—COLLORD.—In Cincinnati, Ohio, on Tuesday, the 24th ult., William H. Taylor, M.D., and Helen Rebecca, daughter of W. A. Collord.

WILEY—TITLOW.—September 9th, at the residence of the bride's mother, Norristown, Pa., by Rev. Robert Adair, Dr. S. N. Wiley and Miss Mary E. Titlow, both of Norristown, Pa.

DEATHS.

CASTLE.—In New York City, on Tuesday, August 31st, Dr. A. C. Castle.

THORNE.—On Wednesday, September 1st, 1880, at his residence, No. 51 Sands street, Brooklyn, N. Y., Dr. J. Sullivan Thorne.